

## **REMARKS**

Claims 1 – 108 are pending in the application. Claims 9, 10, 20, 31 – 86, 90 – 92, 96 and 102 – 108 are cancelled. Claims 1, 5, 6, 24, 25, 93, 94, and 99 have been amended. Claims 109 – 116 have been added. No new matter has been added. Support for the new claims and claim amendments can be found throughout the claims and specification, for example on pages 3, 8, 10, 13 and 24.

### **Objections**

The Examiner has objected to the drawings. The Examiner argues that “all of the claimed structures encompassed by claims 1 – 30, 78 – 89, 93 – 95 and 97 – 101 must be shown or the feature(s) canceled from the claim(s).” (Office Action, p.3).

Applicants have amended the drawings. Corrected drawing sheets will be submitted under separate cover. Applicants respectfully request that the objection be withdrawn.

The Examiner has objected to claims 5 and 93 for minor informalities. Claim 5 has been amended to correct for dependency. Claim 93 has been amended to correct a minor spelling error.

Applicants respectfully request that the objection be withdrawn.

### **Claim Rejections- 35 U.S.C. § 112**

Claims 1 – 30, 87 – 89 and 97 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner argues that “in claim 1, line 2, the ‘substantially planar structure’ lacks antecedent basis.” (Office Action, p.4). The Examiner argues that “in claim 25, ‘the cell chamber’ lacks antecedent basis.” (Office Action, p.5).

Applicants have amended claim 1 to recite “substantially planar substrate.” Applicants have amended claim 25 to depend from claim 24. Accordingly, Applicants respectfully request that the rejections be withdrawn.

### **Claim Rejections- 35 U.S.C. § 102**

Claims 1 – 6, 9 – 18, 20 – 30, 87 – 89, 93 – 95 and 97 - 101 have been rejected under 35 U.S.C. § 102(a) or 102(e) as being anticipated by Baumann et al. (US 6,368,851). The Examiner alleges that the US 6,368,851 reference (“the ‘851 reference”) “discloses a substantially planar substrate (4) in communication with at least one conducting element (18), wherein the substantially planar substrate (4) comprises at least one nonplanar element (20) for establishing and/or maintaining electrical communication with a cell.” (Office Action, p.5). Applicants respectfully traverse the rejection.

The instantly claimed invention relates to a substantially planar substrate in communication with at least one conducting element, wherein the substantially planar substrate comprises at least one nonplanar element for establishing and/or maintaining electrical communication with a cell, at least one channel in communication with a fluid source, at least one cell chamber, at least one nonplanar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate.

The teachings of the ‘851 reference do not anticipate the claimed invention. Specifically, the ‘851 reference fails to teach **at least one cell chamber, at least one nonplanar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate.**

The Examiner argues that the ‘851 reference discloses “a substantially planar substrate (4) (see Figure 22) in communication with at least one conducting element for establishing and/or maintaining electrical communication with a cell.” (Office Action, p.5). The Examiner argues that “the nonplanar element (20) can be exposed to a fluid flow from a fluid source.” (Office Action, p.6). However, nowhere in the ‘851 reference is it taught or suggested that the invention encompasses at least one cell chamber, at least one non-planar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate. The ‘851 reference teaches at column 11, lines 2 – 9:

In the embodiments according to FIGS. 1 and 2 as well as 5 to 17, the specimen slide 4 has within the support area 5 a measuring and

electroporation electrode 6,7, which has an active electrode area 8 that projects beyond the surface plane of the support area 5. In the support area 5, an electric insulator 9 is arranged surrounding the active electrode area 8, on which insulator the cell 3 can be mounted to seal off the nutrient medium 2.

At column 12, lines 48 – 54, the description further teaches:

As can be recognized especially well from FIGS. 1 to 10, the electric insulator 9 has within the support area 5 a projection 20 that projects beyond its surface plane, on which projection is arranged the free end of the active electrode area of the electroporation electrode 7, which faces away from the surface plane.

The Examiner argues “the nonplanar element (20) can be exposed to a fluid flow from a fluid source.” (Office Action, p.6). However, from the detailed description of the ‘851 reference, there is no teaching or suggestion that there is a nonplanar element that is exposed to a fluid source and that is an integral part of the substantially planar substrate.

Accordingly, Applicants request withdrawal of the rejection and allowance of the claims.

Claims 1 – 3, 5, 9 – 19, 21 – 23, 25, 27 – 30, 87 – 89, 93 – 95, and 97 - 101, 87 – 89, 93 – 95 and 97 - 101 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Stett et al. (US 2003/0153067).

The instant claims have been described above.

The teachings of the US 2003/0153067 (the ‘067 reference) do not anticipate the claimed invention. The ‘067 reference fails to teach **at least one cell chamber, at least one nonplanar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate.**

The Examiner argues that the ‘067 reference teaches “a substantially planar substrate (31)...in communication with at least one conducting element (43), wherein the substantially planar substrate (31) comprises at least one nonplanar element (37) for establishing and/or maintaining

electrical communication with a cell.” (Office Action, p.8). The ‘067 reference does not teach that the nonplanar element is an integral part of the substantially planar substrate. For example, Applicants refer the Examiner, for example, to paragraphs [0024] – [0028] of the published application which teach that the non-planar element is not integral. For example, at [0024] the specification teaches:

in a refinement of the apparatus, preference is given to the contact unit being arranged at the opening in a detachable manner, and further preference is given to the contact tip being arranged in a replaceable manner.

Accordingly, Applicants request withdrawal of the rejection and allowance of the claims.

Claims 1 – 3, 5, 9 – 19, 21 – 23, 25, 27 – 30, 87 – 89, 93 – 95, and 97 - 101 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Stett et al. (WO 02/03058).

The instant claims have been described above.

The teachings of the WO 02/03058 (the ‘058 reference) do not anticipate the claimed invention. The ‘058 reference fails to teach **at least one cell chamber, at least one nonplanar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate.**

The Examiner argues that the ‘058 reference teaches “a substantially planar substrate (31)...in communication with at least one conducting element (43), wherein the substantially planar substrate (31) comprises at least one nonplanar element (37) for establishing and/or maintaining electrical communication with a cell.” (Office Action, p.8).

In view of the above remarks, Applicants request withdrawal of the rejection and allowance of the claims.

#### **Claim Rejections- 35 U.S.C. § 103(a)**

Claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Baumann et al. (US 6,368,851) or Stett et al. (US 2003/0153067 or WO 02/03058) in view of Klemic et al (Biosensor and Bioelectronics). Applicants respectfully traverse the rejection.

As discussed above, the US 6,368,851 (“the ‘851 reference”) does not teach or suggest at least one cell chamber, at least one nonplanar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate. Thus, as all of the claims require these unobvious features, the ‘851 reference does not render the present claims obvious.

Applicants request withdrawal of the rejection and allowance of the claims.

Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Baumann et al. (US 6,368,851) or Stett et al. (US 2003/0153067 or WO 02/03058) in view of Maher et al (US 6,686, 193). Applicants respectfully traverse the rejection.

As discussed above, the US 2003/0153067 or WO 02/03058 references do not teach at least one cell chamber, at least one nonplanar element exposed to fluid flow from a fluid source, and wherein the nonplanar element is an integral part of the substantially planar substrate. Thus, as all of the claims require these unobvious features, the US 2003/0153067 or WO 02/03058 references do not render the present claims obvious.

Applicants request withdrawal of the rejection and allowance of the claims.

#### **Claim Rejections- Double Patenting**

Claims 1 – 30, 87 – 89, 93 – 95 and 97 – 101 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 31 – 37 and 62 of the copending Application No. 10/688,794. The Examiner argues that “although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 1 – 30, 87 – 89, 93 – 95, and 97 – 101 are generic to all that is recited in claims 31 – 37 and 62 of copending Application No. 10/688,794.” (Office Action, p.17).

Applicants are filing under separate cover a Terminal Disclaimer to obviate the provisional obviousness-type double patenting rejection.

Accordingly, Applicants request withdrawal of the rejection and allowance of the claims.

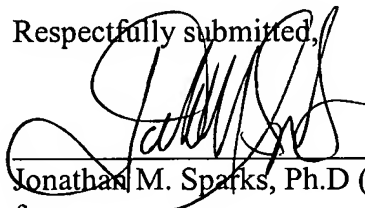
### CONCLUSION

In light of the above remarks, Applicants respectfully request early consideration and allowance of the subject application.

Should the Examiner wish to discuss any of the amendments and/or remarks made herein, the undersigned attorney would appreciate the opportunity to do so.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment to Deposit Account No. **04-1105**.

Respectfully submitted,



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